

Title (en)
DEVICE FOR SOUND SYNTHESIS

Publication
EP 0421531 A3 19910814 (EN)

Application
EP 90202586 A 19901001

Priority
NL 8902463 A 19891004

Abstract (en)
[origin: EP0421531A2] A device for sound synthesis intended to generate a desired acoustic signal comprising - a first signal source (1) intended to emit during operation a periodic signal having a given repetition frequency as representation of the voiced parts of the desired acoustic signal, - a second signal source (2) intended to emit during operation an aperiodic signal or a noise signal as representation of the unvoiced parts of the desired sound signal, - a combination circuit (3) intended to combine the signals of the two signal sources with each other, and - a filter circuit (5) having a variable transmission function intended to process the combined signal to the desired output signal. The device is further provided with a third signal source (2, 14) intended to emit during operation a modulated noise signal consisting of a train or sequence of noise plops of comparatively short duration, whose temporal envelope is synchronous with the temporal envelope of the said periodic signal and which invariably have at least approximately the same energy, which modulated noise signal is supplied during operation together with the signal of the first signal source (2, 11) to the combination circuit (3, 17).

IPC 1-7
G10L 3/00

IPC 8 full level
G10L 13/04 (2013.01)

CPC (source: EP US)
G10L 13/04 (2013.01 - EP US)

Citation (search report)

- [A] IEEE TRANSACTIONS ON AUDIO AND ELECTROACOUSTICS, vol. AU-16, no. 1, March 1968, pages 40-50, New York, US; N.R. DIXON et al.: "Terminal analog synthesis of continuous speech using the diphone method of segment assembly"
- [A] THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, vol. 82, no. 3, September 1987, pages 737-693, New York, US; D.H. KLATT et al.: "Review of text-to-speech conversion for English"
- [A] ICASSP '80, IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, Denver, Colorado, 9th - 11th April 1980, vol. 1, pages 142-145, IEEE, New York, US; C.K. UN et al.: "A 4800 BPS LPC vocoder with improved excitation"
- [A] IEEE TRANSACTIONS ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, vol. ASSP-33, no. 2, April 1985, pages 377-386, New York, US; G.S. KANG et al.: "Improvement of the excitation source in the narrow-band linear prediction vocoder"
- [A] ICASSP '81, IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, Atlanta, Georgia, 30th march - 1st April 1984, vol. 1, pages 118-120, IEEE, New York, US; S. HOLM: "Automatic generation of mixed excitation in a linear predictive speech synthesizer"

Cited by
US8195464B2; CN1069985C

Designated contracting state (EPC)
DE FR GB SE

DOCDB simple family (publication)
EP 0421531 A2 19910410; EP 0421531 A3 19910814; EP 0421531 B1 19950104; DE 69015753 D1 19950216; DE 69015753 T2 19950727; JP H03132699 A 19910606; NL 8902463 A 19910501; US 5204934 A 19930420

DOCDB simple family (application)
EP 90202586 A 19901001; DE 69015753 T 19901001; JP 26064890 A 19901001; NL 8902463 A 19891004; US 59190490 A 19901002